

Remarks

This Amendment is responsive to the Office Action dated October 29, 2003. Claims 1-14 and 16-21 remain for further consideration.

1. Apology noted.

2. A Drawing Amendment was filed on June 28, 2002 correcting the wrong reference numeral which is referred to.

3. The outer cladding 23 is shown by the Amendment filed June 28, 2002. The recitations of cladding 22 have both been amended to refer to "inner, pump cladding 22", thereby obviating the objection.

4. Claims 1-21 are rejected as indefinite. Claims 1, 2 and 14 refer to "each core" twice: the only possible antecedent for "each core" in both appearances is one or more cores. There is nothing indefinite about it. However, in the interest of furthering the prosecution, the language has been amended to refer to "each of said one or more cores."

Claim 5 is amended to identify that the single core or the central core are "disposed at the center of said cladding"; this defines "'where' is the core structural related to the other limitations in the claim". Claim 7 has been amended to refer to "long axes of said central core and said additional cores".

Claim 1, line 9 really does recite "a linearly polarized output laser beam".

Line 10 has been amended to refer to "each of said one or more cores having a mode discriminating core characteristic." There is no reference to "the mode discriminating core"; the reference is to a "core characteristic". The claim now clearly defines structural relationship with prior limitations. Claim 1, line 12 does not refer to "a single core"; line 12 refers to "said single core". It is perfectly clear. Line 14 has been amended to refer to "said additional cores".

The reference to claim 1, lines 18-21, as having "no other limitations recited in the claim to produce any phase laser power or laser beam, the recitation

of such functions render the claim confusing vague and indefinite" is wholly unfounded. The structure recited will provide the radiation referred to in lines 18-21 of claim 1. If this allegation is to be sustained, there must be proof provided by the Patent Office that the allegation is true. A patent application with great detail claims that this result will occur and that is the prima facie evidence in this case. If there is to be other evidence, the Patent Office must produce it. Therefore, this complaint against claim 1 must be withdrawn unless adequate proof shown that such a claimed device could not get that result that is set forth in lines 18-21.

The amendments referred to with respect to claim 1 have also been made, where appropriate, in claims 2 and 14.

Therefore, reexamination and withdrawal of the -112 rejection of claims 1, 2 and 14 is hereby respectfully requested. It is understood that the remaining claims were rejected under -112 only as depending from claim 1, 2 or 14.

6,7. Claims 14, 15 and 20 are rejected as obvious over DiGiovanni et al (DiGiovanni) in view of Keck. Claim 15 has been cancelled.

The entire prior response to this exact same rejection, which response was filed December 30, 2002, and appears on pages 9-12 labeled paragraphs 4-6, is hereby incorporated herein entirely by reference. The short answer is that a clad pumped laser requires that the cladding have a significantly lower index than the core. Keck has a cladding surrounding the core "having a refractive index greater than that of the core glass" (column 3, lines 47-49). In paragraph 9 of the rejection, Response to Arguments, it is stated that "Keck shows in Fig. 6 a laser fiber (70) comprising an inner cladding (78) an outer cladding (74) and a single core (80). There is no different between the applicant fiber laser and Keck fiber laser." This is entirely wrong because, as previously stated and as just now emphasized, the extra cladding in Keck is not a pump cladding and it cannot be a pump cladding since Keck's cladding surrounding the core "having a refractive index greater than

that of the core glass" (column 3, lines 47-49). A pump cladding must have a lower index of refraction, as is described in page 5 of this application and is also described in DiGiovanni.

You cannot combine Keck with DiGiovanni without destroying one or the other of them. Either DiGiovanni will no longer be a waveguide which will pass whatever polarization characteristics are inserted into it, or DiGiovanni will no longer have pump cladding. MPEP 2143.01; 2145X.D.

The statement that "the use of an oblong core for optical fiber is notorious old in the art" is disputed. If that allegation is to be maintained, it should be proven. MPEP 2144.03(c); 2144.02.

Claim 20 depends from claim 14 and is patentable for the same reasons. Therefore, reconsideration and allowance of claims 14 and 20 over DiGiovanni and Keck is hereby respectfully requested.

8. Claims 16, 17, 19 and 21 are rejected as obvious over DiGiovanni in view of Keck further in view of Scifres. The inappropriateness of the rejection of claim 14 is amply set forth in the former response which has been incorporated herein and in paragraph 6, 7 hereinbefore. Claims 16, 17, 19 and 21 all depend from claim 14 and are patentable for the same reasons. Further, as stated in the previous response, Scifres forms "a line of image laser spots, e.g., for laser cutting applications" and therefore teaches nothing with respect to a linearly polarized, single output. Therefore, reconsideration and allowance of claims 16, 17, 19 and 21 over all three references is hereby respectfully requested.

9. Keck's outer cladding and inner cladding can neither be a pump cladding because the index refraction is wrong with respect to the core. Therefore, applicants' argument is correct.

Why is "Claims 1-21 are not patentable" attached to this paragraph? Is this another rejection. It is here treated as a mistake.

10. Should the foregoing not be persuasive, a telephone call is earnestly solicited.

Respectfully submitted,



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